

CIRCULAR No. 91.

DEPARTMENT OF INLAND REVENUE,

Ottawa, February 16th, 1875.

1st. Circular No. 89 is hereby cancelled, and all the copies which have been distributed are to be collected and returned to this office.

2nd. In determining the quantity of Spirits at low temperature, the following system will be observed:--

When the temperature at which the spirits were originally put up is marked on the package a sample is to be drawn and raised approximately to that temperature, not more than 5° above it nor more than 5° below it. When the temperature is not marked on the package the sample is to be raised to at least $+45^{\circ}$ of temperature. The sample is then to be used both for determining the strength of the spirit in the package and the indication by which the specific gravity or divisor is determined for ascertaining the number of gallons in the cask, as directed in the regulations under Circular No. 85.

3rd. The words "but disregarding temperature," in Paragraph 4 of the regulations under Circular No. 85, are to be erased.

4th. All spirits for which Entries for Warehouse are passed in your division are to be tested for quantity in accordance with Circular No. 85, and the regulations made thereunder as hereby amended; and whenever it is ascertained that the packages contain a larger quantity than is stated in the removal papers, Warehouse Bonds are to be taken for such increased quantity, and the Collector by whom the removal bonds were taken is to be advised of the change.



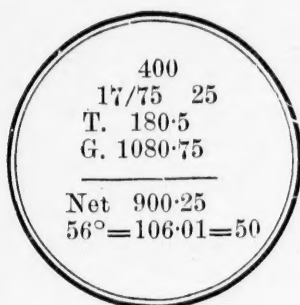
Commissioner.

DEPARTMENT OF INLAND REVENUE,

OTTAWA, *February 17, 1875.*

[OVER]

P.S.—The marks required to be put on the packages will be sufficient if in accordance with the following example:—



This marking will be read as follows:—

Bond Number, 400.

Date, 17/75. Progressive No., 25.

Tare, 180.5 lbs.

Gross, 1080.75 "

Net, 900.25

Temp. 56°=106.01 gals. of 50 o.p. spirits

The name of the Distiller and the true contents of the package in gallons must be marked on each head of the cask, in accordance with sec. 47 of the Act 31 Vic., cap. 8, but it is only necessary to put the remainder of the marking on one of the heads of the cask.

A. B.

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REGULATIONS
FOR
DETERMINING THE WEIGHT OF FLUIDS

SUBJECT TO EXCISE BY WEIGHING,

Under Circular No. 85.

1. All packages used for putting up fluids subject to excise must be carefully "tared" before being filled, and the tare is to be legibly painted on the ends of casks, or distinctly shown by such means as may be available on packages other than casks. The "tare" is to be expressed in pounds and decimal parts of a pound.

2. After the package has been filled its gross weight is to be ascertained in pounds (and decimal parts of a pound), by careful weighing on suitable scales provided by the owner of the article, and such scales must have received the approval of the Department.

3. The gross weight is to be marked under the tare. The tare is then to be deducted and the net weight written below.

4. When the package contains spirits a sample is to be drawn and the Hydrometer indication taken in the usual manner, but disregarding temperature. From the indication thus ascertained the number of gallons will be determined by dividing the net weight by the weight per gallon placed opposite the Hydrometer indication in the accompanying Table No. 1.

5. The observed Hydrometer indication, the divisor derived therefrom, and the ascertained number of gallons are to be marked on the package, when the whole of the marking will stand thus:—

Tare, . . .	22.5 lbs.
Gross, . . .	560.4 "

Indi. 17.2 .. $537.9 \div 8.446 = 63.68$ gallons.

6. When the article to be measured is not spirit a special gravity instrument will be used instead of the Hydrometer for determining the specific gravity. For determining quantities of malt liquor, Bate's Saccharometer will be most suitable, but for petroleum the "Petroleumometer" should be used. Both these instruments are made to indicate specific gravities. Until a supply of Petroleumometers can be obtained, Baumé's instrument may be used for petroleum, if no better is available; the actual specific gravities will then be obtained from Table No. 2.

7. The weight per gallon will be ascertained from the specific gravity by removing the decimal point one place to the right, thus:—

Specific gravity, .8064. Weight per gallon, 8.064 lbs.

8. When the number of gallons is computed direct from specific gravities the marking on the package will stand thus:—

Tare, . . .	22.5
Gross, . . .	560.4

S. G., .7321 . . . 537.9 = 73.47 gallons.

9. When weighing is applied to the verification of the quantity contained in packages, which have been filled for some considerable time, but upon which the tare has been properly marked, it will be necessary to empty not less than 10 per cent. of such packages in order to ascertain whether there has been any change in them, from absorption of moisture or otherwise. If a change is indicated, the average difference, ascertained by testing as above, is to be applied to all packages,—the whole of which, with their contents, are to be weighed and the tare determined as above in each case deducted. The Hydrometer indication, or the specific gravity, as the case may be, is then to be ascertained by samples drawn from such a number of the packages as may appear to be necessary; but in no case from less than one-fifth of the packages.

10. The quantities ascertained in the manner above described are to be marked below the previous marks, and in the same form, and the abbreviated word "ver'd.," with the usual indication as to date, prefixed. The original marks, as to tare and quantity, are then to be *crossed*, but not obliterated or made indistinct.

11. To ascertain quantities contained in casks or other packages upon which the tare has not been marked, the whole must be emptied and the tare correctly ascertained, and the whole weighed and marked as above directed.

12. When the verification or regauging takes place, for the purpose of determining the quantity of spirits or other excisable articles in bond, an ex-warehouse entry must be immediately passed for, and the duty paid on whatever deficiency may be so ascertained; and it must be distinctly understood that such regauging or verification will not in any way *diminish* the duty to which any parcel or lot of excisable goods may be liable.

A. Brimel

Commissioner

OTTAWA,

January 13, 1875.

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TABLE No. 1,

For determining the weight per gallon of Spirits for every indication by Syke's Hydrometer.

Indication.	Weight of one gallon. —lbs.	Specific Gravity.	Indication.	Weight of one gallon. —lbs.	Specific Gravity.
0.	8.154	.8154	8.	8.289	.8289
.2	8.157	.8157	.2	8.292	.8292
.4	8.161	.8161	.4	8.296	.8296
.6	8.164	.8164	.6	8.299	.8299
.8	8.168	.8168	.8	8.303	.8303
1.	8.171	.8171	9.	8.306	.8306
.2	8.174	.8174	.2	8.309	.8309
.4	8.178	.8178	.4	8.313	.8313
.6	8.181	.8181	.6	8.316	.8316
.8	8.185	.8185	.8	8.320	.8320
2.	8.188	.8188	10.	8.323	.8323
.2	8.191	.8191	.2	8.326	.8326
.4	8.195	.8195	.4	8.330	.8330
.6	8.198	.8198	.6	8.333	.8333
.8	8.202	.8202	.8	8.337	.8337
3.	8.205	.8205	11.	8.340	.8340
.2	8.208	.8208	.2	8.343	.8343
.4	8.212	.8212	.4	8.347	.8347
.6	8.215	.8215	.6	8.350	.8350
.8	8.219	.8219	.8	8.354	.8354
4.	8.222	.8222	12.	8.357	.8357
.2	8.225	.8225	.2	8.361	.8361
.4	8.229	.8229	.4	8.364	.8364
.6	8.232	.8232	.6	8.368	.8368
.8	8.236	.8236	.8	8.371	.8371
5.	8.239	.8239	13.	8.375	.8375
.2	8.242	.8242	.2	8.378	.8378
.4	8.245	.8245	.4	8.382	.8382
.6	8.249	.8249	.6	8.385	.8385
.8	8.252	.8252	.8	8.389	.8389
6.	8.255	.8255	14.	8.392	.8392
.2	8.258	.8258	.2	8.395	.8395
.4	8.262	.8262	.4	8.399	.8399
.6	8.265	.8265	.6	8.402	.8402
.8	8.269	.8269	.8	8.406	.8406
7.	8.272	.8272	15.	8.409	.8409
.2	8.275	.8275	.2	8.412	.8412
.4	8.279	.8279	.4	8.416	.8416
.6	8.282	.8282	.6	8.419	.8419
.8	8.286	.8286	.8	8.423	.8423

Indication.	Weight of one gallon. —lbs.	Specific Gravity.	Indication.	Weight of one gallon. —lbs.	Specific Gravity.
16.	8.426	.8426	25.		
.2	8.429	.8429	.6	8.593	.8593
.4	8.433	.8433	.8	8.596	.8596
.6	8.436	.8436	26.	8.600	.8600
.8	8.440	.8440	.2	8.603	.8603
17.	8.443	.8443	.4	8.607	.8607
.2	8.446	.8446	.6	8.610	.8610
.4	8.450	.8450	.8	8.614	.8614
.6	8.453	.8453	27.	8.617	.8617
.8	8.457	.8457	.2	8.620	.8620
18.	8.460	.8460	.4	8.624	.8624
.2	8.464	.8464	.6	8.628	.8628
.4	8.467	.8467	.8	8.631	.8631
.6	8.471	.8471	28.	8.635	.8635
.8	8.474	.8474	.2	8.639	.8639
19.	8.478	.8478	.4	8.642	.8642
.2	8.481	.8481	.6	8.646	.8646
.4	8.485	.8485	.8	8.649	.8649
.6	8.488	.8488	29.	8.653	.8653
.8	8.492	.8492	.2	8.656	.8656
20.	8.495	.8495	.4	8.660	.8660
.2	8.498	.8498	.6	8.663	.8663
.4	8.502	.8502	.8	8.667	.8667
.6	8.505	.8505	30.	8.670	.8670
.8	8.509	.8509	.2	8.674	.8674
21.	8.512	.8512	.4	8.677	.8677
.2	8.516	.8516	.6	8.681	.8681
.4	8.519	.8519	.8	8.684	.8684
.6	8.523	.8523	31.	8.688	.8688
.8	8.526	.8526	.2	8.692	.8692
22.	8.530	.8530	.4	8.695	.8695
.2	8.533	.8533	.6	8.699	.8699
.4	8.537	.8537	.8	8.702	.8702
.6	8.540	.8540	32.	8.706	.8706
.8	8.544	.8544	.2	8.709	.8709
23.	8.547	.8547	.4	8.713	.8713
.2	8.551	.8551	.6	8.716	.8716
.4	8.554	.8554	.8	8.720	.8720
.6	8.558	.8558	33.	8.723	.8723
.8	8.561	.8561	.2	8.727	.8727
24.	8.565	.8565	.4	8.730	.8730
.2	8.568	.8568	.6	8.734	.8734
.4	8.572	.8572	.8	8.737	.8737
.6	8.575	.8575	34.	8.741	.8741
.8	8.579	.8579	.2	8.745	.8745
25.	8.582	.8582	.4	8.748	.8748
.2	8.586	.8586	.6	8.752	.8752
.4	8.589	.8589	.8	8.755	.8755

c Gravity.

Indication.	Weight of one gallon. —lbs.	Specific Gravity.	Indication.	Weight of one gallon —lbs.	Specific Gravity.
35.	8.759	.8759	44.		
.2	8.763	.8763	.6	8.933	.8933
.4	8.766	.8766	.8	8.936	.8936
.6	8.770	.8770	45.	8.940	.8940
.8	8.773	.8773	.2	8.944	.8944
36.	8.777	.8777	.4	8.947	.8947
.2	8.781	.8781	.6	8.951	.8951
.4	8.784	.8784	.8	8.954	.8954
.6	8.788	.8788	46.	8.958	.8958
.8	8.791	.8791	.2	8.962	.8962
37.	8.795	.8795	.4	8.965	.8965
.2	8.799	.8799	.6	8.969	.8969
.4	8.802	.8802	.8	8.972	.8972
.6	8.806	.8806	47.	8.976	.8976
.8	8.809	.8809	.2	8.980	.8980
38.	8.813	.8813	.4	8.984	.8984
.2	8.817	.8817	.6	8.987	.8987
.4	8.820	.8820	.8	8.991	.8991
.6	8.824	.8824	48.	8.995	.8995
.8	8.827	.8827	.2	8.999	.8999
39.	8.831	.8831	.4	9.002	.9002
.2	8.835	.8835	.6	9.006	.9006
.4	8.838	.8838	.8	9.009	.9009
.6	8.842	.8842	49.	9.013	.9013
.8	8.845	.8845	.2	9.017	.9017
40.	8.849	.8849	.4	9.021	.9021
.2	8.853	.8853	.6	9.024	.9024
.4	8.856	.8856	.8	9.028	.9028
.6	8.860	.8860	50.	9.032	.9032
.8	8.863	.8863	.2	9.036	.9036
41.	8.867	.8867	.4	9.039	.9039
.2	8.871	.8871	.6	9.043	.9043
.4	8.874	.8874	.8	9.046	.9046
.6	8.878	.8878	51.	9.050	.9050
.8	8.881	.8881	.2	9.054	.9054
42.	8.885	.8885	.4	9.058	.9058
.2	8.889	.8889	.6	9.061	.9061
.4	8.892	.8892	.8	9.065	.9065
.6	8.896	.8896	52.	9.069	.9069
.8	8.899	.8899	.2	9.073	.9073
43.	8.903	.8903	.4	9.076	.9076
.2	8.907	.8907	.6	9.080	.9080
.4	8.911	.8911	.8	9.083	.9083
.6	8.914	.8914	53.	9.087	.9087
.8	8.918	.8918	.2	9.091	.9091
44.	8.922	.8922	.4	9.095	.9095
.2	8.926	.8926	.6	9.098	.9098
.4	8.929	.8929	.8	9.102	.9102

Indication.	Weight of one gallon. —lbs.	Specific Gravity.	Indication.	Weight of one gallon. —lbs.	Specific Gravity.
54.	9.106	.9106	63.		
.2	9.110	.9110	.6	9.286	.9286
.4	9.114	.9114	.8	9.290	.9290
.6	9.117	.9117	64.	9.294	.9294
.8	9.121	.9121	.2	9.298	.9298
55.	9.125	.9125	.4	9.302	.9302
.2	9.129	.9129	.6	9.305	.9305
.4	9.132	.9132	.8	9.309	.9309
.6	9.136	.9136	65.	9.313	.9313
.8	9.139	.9139	.2	9.317	.9317
56.	9.143	.9143	.4	9.321	.9321
.2	9.147	.9147	.6	9.324	.9324
.4	9.151	.9151	.8	9.328	.9328
.6	9.154	.9154	66.	9.332	.9332
.8	9.158	.9158	.2	9.336	.9336
57.	9.162	.9162	.4	9.340	.9340
.2	9.166	.9166	.6	9.344	.9344
.4	9.170	.9170	.8	9.348	.9348
.6	9.173	.9173	67.	9.352	.9352
.8	9.177	.9177	.2	9.356	.9356
58.	9.181	.9181	.4	9.360	.9360
.2	9.185	.9185	.6	9.363	.9363
.4	9.189	.9189	.8	9.367	.9367
.6	9.192	.9192	68.	9.371	.9371
.8	9.196	.9196	.2	9.375	.9375
59.	9.200	.9200	.4	9.379	.9379
.2	9.204	.9204	.6	9.382	.9382
.4	9.207	.9207	.8	9.386	.9386
.6	9.211	.9211	69.	9.390	.9390
.8	9.214	.9214	.2	9.394	.9394
60.	9.218	.9218	.4	9.398	.9398
.2	9.222	.9222	.6	9.401	.9401
.4	9.226	.9226	.8	9.405	.9405
.6	9.229	.9229	70.	9.409	.9409
.8	9.233	.9233	.2	9.413	.9413
61.	9.237	.9237	.4	9.417	.9417
.2	9.241	.9241	.6	9.420	.9420
.4	9.245	.9245	.8	9.424	.9424
.6	9.248	.9248	71.	9.428	.9428
.8	9.252	.9252	.2	9.432	.9432
62.	9.256	.9256	.4	9.436	.9436
.2	9.260	.9260	.6	9.440	.9440
.4	9.264	.9264	.8	9.444	.9444
.6	9.267	.9267	72.	9.448	.9448
.8	9.271	.9271	.2	9.452	.9452
63.	9.275	.9275	.4	9.456	.9456
.2	9.279	.9279	.6	9.459	.9459
.4	9.283	.9283	.8	9.463	.9463

Specific Gravity.

9286
9290
9294
9298
9302
9305
9309
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448
452
456
459
463

Indication.	Weight of one gallon.		Specific Gravity.	Indication.	Weight of one gallon.		Specific Gravity.
	—lbs.				—lbs.		
73.	9.467	.9467		82.			
.2	9.471	.9471		.6	9.655	.9655	
.4	9.475	.9475		.8	9.659	.9659	
.6	9.479	.9479		83.	9.663	.9663	
.8	9.483	.9483		.2	9.667	.9667	
74.	9.487	.9487		.4	9.671	.9671	
.2	9.491	.9491		.6	9.674	.9674	
.4	9.495	.9495		.8	9.678	.9678	
.6	9.498	.9498		84.	9.682	.9682	
.8	9.502	.9502		.2	9.686	.9686	
75.	9.506	.9506		.4	9.690	.9690	
.2	9.510	.9510		.6	9.694	.9694	
.4	9.514	.9514		.8	9.698	.9698	
.6	9.517	.9517		85.	9.702	.9702	
.8	9.521	.9521		.2	9.706	.9706	
76.	9.525	.9525		.4	9.710	.9710	
.2	9.529	.9529		.6	9.714	.9714	
.4	9.533	.9533		.8	9.718	.9718	
.6	9.537	.9537		86.	9.722	.9722	
.8	9.541	.9541		.2	9.726	.9726	
77.	9.545	.9545		.4	9.730	.9730	
.2	9.549	.9549		.6	9.733	.9733	
.4	9.553	.9553		.8	9.737	.9737	
.6	9.557	.9557		87.	9.741	.9741	
.8	9.561	.9561		.2	9.745	.9745	
78.	9.565	.9565		.4	9.749	.9749	
.2	9.569	.9569		.6	9.753	.9753	
.4	9.573	.9573		.8	9.757	.9757	
.6	9.576	.9576		88.	9.761	.9761	
.8	9.580	.9580		.2	9.765	.9765	
79.	9.584	.9584		.4	9.769	.9769	
.2	9.588	.9588		.6	9.773	.9773	
.4	9.592	.9592		.8	9.777	.9777	
.6	9.596	.9596		89.	9.781	.9781	
.8	9.600	.9600		.2	9.785	.9785	
80.	9.604	.9604		.4	9.789	.9789	
.2	9.608	.9608		.6	9.792	.9792	
.4	9.612	.9612		.8	9.796	.9796	
.6	9.615	.9615		90.	9.800	.9800	
.8	9.619	.9619		.2	9.804	.9804	
81.	9.623	.9623		.4	9.808	.9808	
.2	9.627	.9627		.6	9.812	.9812	
.4	9.631	.9631		.8	9.816	.9816	
.6	9.635	.9635		91.	9.820	.9820	
.8	9.639	.9639		.2	9.824	.9824	
82.	9.643	.9643		.4	9.828	.9828	
.2	9.647	.9647		.6	9.832	.9832	
.4	9.651	.9651		.8	9.836	.9836	

Indication.	Weight of one gallon. —lbs.	Specific Gravity.	Indication.	Weight of one gallon. —lbs.	Specific Gravity.
92.	9.840	.9840	96.	9.921	.9921
.2	9.844	.9844	.2	9.925	.9925
.4	9.848	.9848	.4	9.929	.9929
.6	9.852	.9852	.6	9.934	.9934
.8	9.856	.9856	.8	9.938	.9938
93.	9.860	.9860	97.	9.942	.9942
.2	9.864	.9864	.2	9.946	.9946
.4	9.868	.9868	.4	9.950	.9950
.6	9.872	.9872	.6	9.955	.9955
.8	9.876	.9876	.8	9.959	.9959
94.	9.880	.9880	98.	9.963	.9963
.2	9.884	.9884	.2	9.967	.9967
.4	9.888	.9888	.4	9.972	.9972
.6	9.892	.9892	.6	9.976	.9976
.8	9.896	.9896	.8	9.981	.9981
95.	9.900	.9900	99.	9.985	.9985
.2	9.904	.9904	.2	9.989	.9989
.4	9.908	.9908	.4	9.994	.9994
.6	9.913	.9913	.6	9.998	.9998
.8	9.917	.9917	.8	10.003	1.0003
			100.	10.007	1.0007*
					.9992†

*At 50° F.

† At 60° F.

NOTE.—As the law respecting weights and measures will take effect on 1st July next, the above tables have been prepared with reference to the standard gallon defined in the said law.

Until July 1st it will be necessary to convert standard gallons into wine gallons, which may be readily done by adding ONE-FIFTH to the quantity determined by these tables Thus:

Indication by Hydrometer..... 5.
 Net weight 500 lbs.
 Then 500—8.239 = 60.68 gallons.
 Add one-fifth = 12.13
72.81 wine gallons.

Specific Gravity.

.9921
.9925
.9929
.9934
.9938
.9942
.9946
.9950
.9955
.9959
.9963
.9967
.9972
.9976
.9981
.9985
.9989
.9994
.9998
0003
0007*
9992†

1st July
gallon de-
gallons,
by these

TABLE No. 2,

Showing the weight per gallon of Petroleum, or other fluids, for each degree of gravity as indicated by Baumé's Hydrometer, used in the petroleum trade.

By Baumé's Hydrometer.	Specific Gravity.	Weight per Standard Gallon.
30	.8730	8.730
31	.8686	8.686
32	.8642	8.642
33	.8598	8.598
34	.8554	8.554
35	.8510	8.510
36	.8466	8.466
37	.8422	8.422
38	.8378	8.378
39	.8334	8.334
40	.8290	8.290
41	.8246	8.246
42	.8202	8.202
43	.8158	8.158
44	.8114	8.114
45	.8070	8.070
46	.8026	8.026
47	.7982	7.982
48	.7938	7.938
49	.7894	7.894
50	.7850	7.850
51	.7806	7.806
52	.7752	7.752
53	.7708	7.708
54	.7664	7.664
55	.7620	7.620
56	.7576	7.576
57	.7532	7.532
58	.7488	7.488
59	.7444	7.444
60	.7400	7.400
61	.7356	7.356
62	.7312	7.312
63	.7268	7.268
64	.7224	7.224
65	.7180	7.180

NOTE.—The quantities arrived at by the above table may be converted into wine gallons in the manner explained in note to Table No. 1.